

Abstract Submitted
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Feedback effects on the pairing interaction in color superconductors near the transition temperature KEI IIDA, RIKEN BNL Research Center
— We examine the role that the gap dependence of the pairing interaction plays in the gap equation for a weakly coupled uniform superfluid of three-flavor massless quarks near the transition temperature T_c . We find that the feedback effects on Landau-damped transverse gluons mediating the pairing interaction alter the gap magnitude in a way dependent on the color structure of the gap. We estimate corrections by these effects to the parameters characterizing the fourth-order terms in the Ginzburg-Landau free energy and ensure the stability of a color-flavor locked state near T_c .

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